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November 12, 2002

Christopher E. Mahoney
Primary Examiner AU2851
Art Unit 2851
U.S. Patent and Trademark Office
Box Patent Application
Washington, DC 20231

Re: U.S. Patent Application No. 09/589,223
Filed: June 6, 2000
Title: Dual Camera Mount for Stereoscopic Imaging
Docket No.: QUA1844.08A

Dear Examiner Mahoney:

The following is a response to the Office Action mailed July 29, 2002.

**Response to Office Action of July 29, 2002
Regarding US Pat. App. 09/589/223**

1. Specification

The Examiner objects to the disclosure because of "spurious '###' on page 8, lines 16 and 18." Applicant filed an appropriate amendment to rectify this typographical error along with its last response on May 2, 2002. The correct reading, as last amended, should be "torsion spring 18". Applicant does not understand why this matter has been raised again.

2. Applicant's Claims Under 35 U.S.C. 112

The Examiner has rejected Claim 3 under 35 USC 112 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time of the application was filed, had possession of the claimed invention. Applicant has amended Claim 3 to remove the term "yaw" from Claim 3, subparagraphs (b) and (c). This should resolve the Examiner's objection to Claim 3.

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3. Applicant's Claims Under 35 USC 102

The examiner has rejected Applicant's Claims 2 through 5 for obviousness under 35 U.S.C. 102(b) in view of the disclosure in Waller, U. S. Pat. No. 2,583,030.

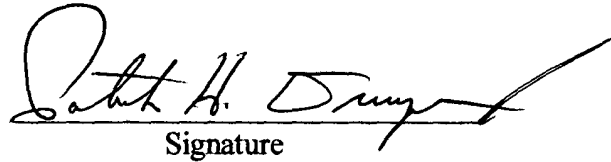
Applicant respectfully submits that the Examiner has confused two very different optical principles, that of "parallax" as discussed in Waller and that of "convergence" as discussed by Applicant. Waller addresses the problem of parallax between *three* cameras (see column 3, lines 21-48, and Figs. 3-4, 6, 8-11 and) taking separate images that are later projected back side by side to make a single, composite, *two dimensional image* known at that time as a "mosaic". In contrast, Applicant's invention deals with the making of *three dimensional* images and the various optical problems encountered when using *two* cameras (not three as disclosed by Waller) to take images that are later projected back on top of each other (not side by side) to create a three dimensional image.

Waller was concerned with the elimination of *parallax* between the edges of three separate images when projected together *side-by-side* to make a single, two dimensional image. In contrast, Applicant's invention deals with all of the optical problems involved with the making of a three dimensional image from only two images projected onto the *same field of view*. One of these problems is the point of "convergence" which, in the context of making three dimensional images, is the point in space in front of the cameras at which their line of sight *converges* (or crosses). This is a completely different optical issue than parallax. In fact, the point of Waller was to make a device that *prevented* the images of the three cameras from crossing each other so that there would not be any overlap of the three images. In three dimensional imaging, the images *must overlap because of convergence* in order to obtain a three dimensional effect.

There is nothing in Waller that discloses a device for making three dimensional images or for solving any of the optical problems in making three dimensional images. Waller never discusses three dimensional imaging, it only teaches a device to make two dimensional images that can be placed side by side to make a bigger two dimensional image. Thus, it would not have been obvious to one skilled in the art to learn how to make Applicant's invention.

Moreover, the mechanical mechanism taught by Waller is very different from that taught by Applicant. Waller's mechanical portion of the invention is designed for three cameras, not two cameras. Thus, the gear mechanism to move the cameras is different from Applicant's. Waller's gear system is not designed to be moved continuously while imaging is occurring, but instead, it is designed to be set to a fixed position while three images are taken. Applicant's invention is designed so that the gear system is moved continuously as the distance between the cameras and the primary subject matter of the images changes. Moreover, Waller's invention does not contain the other unique mechanical features taught by Applicant, without which, good three dimensional imaging is not possible. The other unique mechanical features are integrated with the gear system in an original, novel and non-obvious manner. Applicant's invention was clearly not "obvious" in light of Waller.

Based upon the foregoing arguments and amendments in response to the office action of July 29, 2002, the Applicant respectfully requests allowance of all pending claims and that a timely Notice of Allowance be issued in this case.


Signature

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Print Name & Title

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Date: November 12, 2002

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CERTIFICATE OF MAILING BY "EXPRESS MAIL" UNDER 37 CFR SECTION 1.10

TITLE OF INVENTION: Dual Camera Mount for Stereo Imaging

Docket No.: AIM1844.08A

I hereby certify that this Response to Office Action Dated July 29, 2002, Concerning US Patent Application 09/589,223 is being deposited with the United States Post Office on this 12th day of November, 2002, in an envelope marked as "Express Mail Post Office to Addressee", addressed to:

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Washington, D.C. 20231

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Patrick H. Dwyer

Print name of person mailing

Patrick H. Dwyer

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